Amendments to the Claims

Please cancel Claims 63-67. Please amend Claims 1, 6, 7, 18, 24, 45, 52 and 71. Please add new Claims 91-104. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1. (Currently amended) A purge gas mixture supply system, comprising:

~~a purge gas source;~~

~~a water source; and~~

a purge gas mixture generator comprising a moisturizer configured to add moisture to a purge gas, wherein said moisturizer comprises a first region containing a purge gas flow and a second region containing water wherein the first and second regions are separated by a membrane contactor that forms a hollow fiber that is gas permeable and substantially resistant to liquid intrusion, one of the first and second regions being within the fiber and the other of the first and second regions being outside the fiber;

the purge gas mixture generator being configured to add the moisture to the purge gas by further comprising a mass flow controller to control flow rate of the purge gas flow through the first region of the moisturizer and a pressure regulator to control flow of the water through the second region of the moisturizer such that the moisture is added to the purge gas to create a humidified purge gas mixture; and

a purge gas mixture outlet being connected to the purge gas mixture generator to supply the humidified purge gas mixture to at least part of a lithographic projection apparatus.

2. (Previously presented) The supply system of Claim 1, wherein the membrane contactor is comprised of a thermoplastic polymer.

3. (Previously presented) The supply system of Claim 1, wherein the membrane contactor is comprised of a perfluorinated polymer.

4. (Original) The supply system of Claim 3, wherein the perfluorinated polymer is polytetrafluoroethylene.

5. (Canceled)

6. (Currently amended) The supply system of Claim 1, wherein the moisturizer comprises:

a) a bundle of a plurality of gas-permeable hollow fiber membranes having a first end and a second end, said membranes having an outer surface and an inner surface, said inner surface comprising one of the first and second regions;

b) each end of said bundle potted with a liquid tight seal forming an end structure with a surrounding housing wherein the fiber ends are open to fluid flow;

c) said housing having an inner wall and an outer wall, wherein the inner wall defines the other of the first and second regions between the inner wall and the hollow fiber membranes;

d) said housing comprising ~~having~~ a purge gas inlet connected to ~~the~~ a purge gas source, and [[a]] comprising the purge gas mixture outlet; and

e) said housing comprising ~~having~~ a water inlet connected to ~~the~~ a water source, and comprising a water outlet, wherein either the purge gas inlet is connected to the first end of the bundle and the purge gas mixture outlet is connected to the second end of the bundle or the water inlet is connected to the first end of the bundle and the water outlet is connected to the second end of the bundle,

and wherein said purge gas mixture comprises at least one purge gas and the moisture.

7. (Currently amended) A purge gas mixture supply system, comprising:

~~a purge gas source;~~

~~a water source; and~~

a purge gas mixture generator comprising a moisturizer configured to add moisture to a purge gas, wherein said moisturizer comprises:

a) a bundle of a plurality of perfluorinated gas-permeable thermoplastic hollow fiber membranes having a first end and a second end and being substantially resistant to liquid intrusion, said membranes having an outer surface and an inner surface, said inner surface comprising a lumen;

b) each end of said bundle potted with a liquid tight perfluorinated thermoplastic seal forming a unitary end structure with a surrounding perfluorinated thermoplastic housing wherein the fiber ends are open to fluid flow;

c) said housing having an inner wall and an outer wall, wherein the inner wall defines a fluid flow volume between the inner wall and the hollow fiber membranes;

d) said housing comprising ~~having~~ a purge gas inlet connected to ~~the~~ a purge gas source, and comprising a purge gas mixture outlet; and

e) said housing comprising ~~having~~ a water inlet connected to ~~the~~ a water source, and comprising a water outlet, wherein either the purge gas inlet is connected to the first end of the bundle and the purge gas mixture outlet is connected to the second end of the bundle or the water inlet is connected to the first end of the bundle and the water outlet is connected to the second end of the bundle,

and wherein said purge gas mixture comprises at least one purge gas and the moisture;

the purge gas mixture generator being configured to add the moisture to the purge gas by further comprising a mass flow controller to control flow rate of the purge gas flow through the moisturizer and a pressure regulator to control flow of the water through the moisturizer such that the moisture is added to the purge gas to create a humidified purge gas mixture; and

the purge gas mixture outlet being connected to the purge gas mixture generator to supply the humidified purge gas mixture to at least part of a lithographic projection apparatus.

8. (Original) The supply system of Claim 7, further comprising a heating device for the water.

9. (Original) The supply system of Claim 7, wherein the purge gas source comprises a purifier device.

10. (Original) The supply system of Claim 9, wherein the purifier device is regenerable.

11. (Original) The supply system of Claim 10, wherein the purge gas source comprises two purifier devices and wherein the purifier devices are connected in parallel.

12. (Original) The supply system of Claim 7, wherein the hollow fiber membranes are selected from the group consisting of:

a) hollow fiber membranes having a porous skinned inner surface, a porous outer surface and a porous support structure between;

b) hollow fiber membranes having a non-porous skinned inner surface, a porous outer surface and a porous support structure between;

c) hollow fiber membranes having a porous skinned outer surface, a porous inner surface and a porous support structure between; and

d) hollow fiber membranes having a non-porous skinned outer surface, a porous inner surface and a porous support structure between.

13. (Original) The supply system of Claim 12, wherein the hollow fiber membrane outer diameter is about 350 microns to about 1450 microns.

14. (Original) The supply system of Claim 12, wherein the hollow fiber membranes are hollow fiber membranes having a porous skinned inner surface, a porous outer surface and a porous support structure between; or hollow fiber membranes having a porous skinned outer surface, a porous inner surface and a porous support structure between; and

the porous skinned surface pores are from about 0.001 microns to about 0.005 microns in diameter.

15. (Original) The supply system of Claim 7, wherein the first and second ends of the bundle are potted with a liquid tight perfluorinated thermoplastic seal forming a single unitary end structure comprising both the first and second ends with a surrounding perfluorinated thermoplastic housing wherein the fibers of the ends are separately open to fluid flow.

16. (Original) The supply system of Claim 7, wherein said supply system is capable of operation at a purge gas flow rate of at least about 30 standard liters per minute and a temperature of at least about 90°C.

17. (Original) The supply system of Claim 7, wherein the purge gas mixture generator is heated for a sufficient length of time at a temperature sufficient to substantially remove compounds that volatilize at temperatures of about 100°C or less.

18. (Currently amended) A method of humidifying a purge gas, comprising:

passing the purge gas through a moisturizer for a period sufficient to humidify the purge gas, wherein the moisturizer comprises a first region containing a purge gas flow and a second region containing water wherein the first and second regions are separated by a gas-permeable membrane that forms a hollow fiber and is substantially resistant to liquid intrusion, one of the first and second regions being within the fiber and the other of the first and second regions being outside the fiber;

~~the method further comprising~~ controlling flow rate of the purge gas flow through the first region of the moisturizer with a mass flow controller and controlling flow of the water through the second region of the moisturizer with a pressure regulator such that moisture is added to the purge gas to create a humidified purge gas mixture; and

supplying the humidified purge gas mixture to at least part of a lithographic projection apparatus.

19 through 21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (Currently amended) A method of humidifying a purge gas, comprising passing the purge gas through a moisturizer for a period sufficient to humidify the purge gas, wherein the moisturizer comprises:

a) a bundle of a plurality of perfluorinated gas-permeable thermoplastic hollow fiber membranes having a first end and a second end and being substantially resistant to liquid intrusion, said membranes having an outer surface and an inner surface, said inner surface comprising a lumen;

b) each end of said bundle potted with a liquid tight perfluorinated thermoplastic seal forming a unitary end structure with a surrounding perfluorinated thermoplastic housing wherein the fiber ends are open to fluid flow;

c) said housing having an inner wall and an outer wall, wherein the inner wall defines a fluid flow volume between the inner wall and the hollow fiber membranes;

d) said housing comprising ~~having~~ a purge gas inlet connected to a purge gas source, and comprising a purge gas outlet; and

e) said housing having a water inlet connected to a water source and a water outlet, wherein either the purge gas inlet is connected to the first end of the bundle and the purge gas outlet is connected to the second end of the bundle or the water inlet is connected to the first end of the bundle and the water outlet is connected to the second end of the bundle,

thereby obtaining a humidified purge gas;

the method further comprising controlling flow rate of the purge gas flow through the moisturizer with a mass flow controller and controlling flow of the water through the moisturizer with a pressure regulator such that moisture is added to the purge gas; and

supplying the humidified purge gas through the purge gas outlet to at least part of a lithographic projection apparatus.

25 through 43. (Canceled)

44. (Previously presented) A lithographic projection apparatus, comprising:

an illuminator configured to provide a projection beam of radiation;

a support structure configured to support a patterning device, the patterning device configured to pattern the projection beam according to a desired pattern;

a substrate table configured to hold a substrate;

a projection system configured to project the patterned beam onto a target portion of the substrate; and

at least one purge gas supply system configured to provide a purge gas to at least part of the lithographic projection apparatus, the at least one purge gas supply system comprising:

a purge gas mixture generator comprising a moisturizer configured to add moisture to a purge gas, wherein the moisturizer comprises a first region containing a purge gas flow and a second region containing water wherein the first and second regions are separated by a gas-permeable membrane that forms a hollow fiber and is substantially resistant to liquid intrusion, one of the first and second regions being within the fiber and the other of the first and second regions being outside the fiber, the purge gas mixture generator configured to generate a purge gas mixture, which purge gas mixture comprises at least one purge gas and the moisture, the purge gas mixture generator being configured to add the moisture to the purge gas by further comprising a mass flow controller to control flow rate of the purge gas flow through the first region of the moisturizer and a pressure regulator to control flow of the water through the second region of the moisturizer such that the moisture is added to the purge gas; and

a purge gas mixture outlet connected to the purge gas mixture generator configured to supply the purge gas mixture to the at least part of the lithographic projection apparatus.

45. (Currently amended) A lithographic projection apparatus, comprising:

an illuminator configured to provide a projection beam of radiation;

a support structure configured to support a patterning device, the patterning device configured to pattern the projection beam according to a desired pattern;

a substrate table configured to hold a substrate;

a projection system configured to project the patterned beam onto a target portion of the substrate; and

at least one purge gas supply system configured to provide a purge gas to at least part of the lithographic projection apparatus, the at least one purge gas supply system comprising:

a purge gas mixture generator comprising a moisturizer configured to add moisture to a purge gas, wherein the moisturizer comprises:

a) a bundle of a plurality of perfluorinated gas-permeable thermoplastic hollow fiber membranes having a first end and a second end and being substantially resistant to liquid intrusion, said membranes having an outer surface and an inner surface, said inner surface comprising a lumen;

b) each end of said bundle potted with a liquid tight perfluorinated thermoplastic seal forming a unitary end structure with a surrounding perfluorinated thermoplastic housing wherein the fiber ends are open to fluid flow;

c) said housing having an inner wall and an outer wall, wherein the inner wall defines a fluid flow volume between the inner wall and the hollow fiber membranes;

d) said housing comprising ~~having~~ a purge gas inlet connected to ~~the~~ a purge gas source, and comprising a purge gas mixture outlet; and

e) said housing comprising ~~having~~ a water inlet connected to ~~the~~ a water source, and comprising a water outlet, wherein either the purge gas inlet is connected to the first end of the bundle and the purge gas mixture outlet is connected to the second end of the bundle or the water inlet is connected to the first end of the bundle and the water outlet is connected to the second end of the bundle,

the purge gas mixture generator configured to generate a purge gas mixture, which purge gas mixture comprises at least one purge gas and the moisture, the purge gas mixture generator being configured to add the moisture to the purge gas by further comprising a mass flow controller to control flow rate of the purge gas flow through the moisturizer and a pressure regulator to control flow of the water through the moisturizer such that the moisture is added to the purge gas; and

a purge gas mixture outlet connected to the purge gas mixture generator configured to supply the purge gas mixture to the at least part of the lithographic projection apparatus.

46. (Previously presented) A method for providing a purge gas to at least part of a lithographic projection apparatus comprising:

an illuminator configured to provide a projection beam of radiation;

a support configured to support a patterning device, the patterning device configured to pattern the projection beam according to a desired pattern;

a substrate table configured to hold a substrate; and

a projection system configured to project the patterned beam onto a target portion of the substrate;

the method comprising:

generating a purge gas mixture which comprises at least one purge gas and moisture by adding moisture to a purge gas with a moisturizer, wherein the moisturizer comprises a first region containing a purge gas flow and a second region containing water wherein the first and second regions are separated by a

gas-permeable membrane that forms a hollow fiber and is substantially resistant to liquid intrusion, one of the first and second regions being within the fiber and the other of the first and second regions being outside the fiber; and

supplying the purge gas mixture to at least a part of the lithographic projection apparatus;

the method further comprising controlling flow rate of the purge gas flow through the first region of the moisturizer with a mass flow controller and controlling flow of the water through the second region of the moisturizer with a pressure regulator such that the moisture is added to the purge gas.

47. (Previously presented) A method for providing a purge gas to at least part of a lithographic projection apparatus comprising:

an illuminator configured to provide a projection beam of radiation;

a support configured to support a patterning device, the patterning device configured to pattern the projection beam according to a desired pattern;

a substrate table configured to hold a substrate; and

a projection system configured to project the patterned beam onto a target portion of the substrate;

the method comprising:

generating a purge gas mixture which comprises at least one purge gas and moisture by adding moisture to a purge gas with a moisturizer, wherein the moisturizer comprises:

a) a bundle of a plurality of perfluorinated gas-permeable thermoplastic hollow fiber membranes having a first end and a second end and being substantially resistant to liquid intrusion, said membranes having an outer surface and an inner surface, said inner surface comprising a lumen;

b) each end of said bundle potted with a liquid tight perfluorinated thermoplastic seal forming a unitary end structure with a surrounding perfluorinated thermoplastic housing wherein the fiber ends are open to fluid flow;

c) said housing having an inner wall and an outer wall, wherein the inner wall defines a fluid flow volume between the inner wall and the hollow fiber membranes;

d) said housing having a purge gas inlet connected to a purge gas source and a purge gas mixture outlet; and

e) said housing having a water inlet connected to a water source and a water outlet, wherein either the purge gas inlet is connected to the first end of the bundle and the purge gas mixture outlet is connected to the second end of the bundle or the water inlet is connected to the first end of the bundle and the water outlet is connected to the second end of the bundle, and

supplying the purge gas mixture to at least a part of the lithographic projection apparatus;

the method further comprising controlling flow rate of the purge gas flow through the moisturizer with a mass flow controller and controlling flow of the water through the moisturizer with a pressure regulator such that the moisture is added to the purge gas.

48. (Previously presented) The lithographic projection apparatus of Claim 44, wherein the membrane is comprised of a thermoplastic polymer.

49. (Previously presented) The lithographic projection apparatus of Claim 44, wherein the membrane is comprised of a perfluorinated polymer.

50. (Previously presented) The lithographic projection apparatus of Claim 49, wherein the perfluorinated polymer is polytetrafluoroethylene.

51. (Canceled)

52. (Currently amended) The lithographic projection apparatus of Claim 44, wherein the moisturizer comprises:

a) a bundle of a plurality of gas-permeable hollow fiber membranes having a first end and a second end, said membranes having an outer surface and an inner surface, said inner surface comprising one of the first and second regions;

b) each end of said bundle potted with a liquid tight seal forming an end structure with a surrounding housing wherein the fiber ends are open to fluid flow;

c) said housing having an inner wall and an outer wall, wherein the inner wall defines the other of the first and second regions between the inner wall and the hollow fiber membranes;

d) said housing comprising ~~having~~ a purge gas inlet connected to ~~the~~ a purge gas source, and comprising a purge gas mixture outlet; and

e) said housing comprising ~~having~~ a water inlet connected to ~~the~~ a water source, and comprising a water outlet, wherein either the purge gas inlet is connected to the first end of the bundle and the purge gas mixture outlet is connected to the second end of the bundle or the water inlet is connected to the first end of the bundle and the water outlet is connected to the second end of the bundle.

53. (Previously presented) The lithographic projection apparatus of Claim 45, further comprising a heating device for the water.

54. (Previously presented) The lithographic projection apparatus of Claim 45, wherein the purge gas source comprises a purifier device.

55. (Previously presented) The lithographic projection apparatus of Claim 54, wherein the purifier device is regenerable.

56. (Previously presented) The lithographic projection apparatus of Claim 55, wherein the purge gas source comprises two purifier devices and wherein the purifier devices are connected in parallel.

57. (Previously presented) The lithographic projection apparatus of Claim 45, wherein the hollow fiber membranes are selected from the group consisting of:

a) hollow fiber membranes having a porous skinned inner surface, a porous outer surface and a porous support structure between;

b) hollow fiber membranes having a non-porous skinned inner surface, a porous outer surface and a porous support structure between;

c) hollow fiber membranes having a porous skinned outer surface, a porous inner surface and a porous support structure between; and

d) hollow fiber membranes having a non-porous skinned outer surface, a porous inner surface and a porous support structure between.

58. (Previously presented) The lithographic projection apparatus of Claim 57, wherein the hollow fiber membrane outer diameter is about 350 microns to about 1450 microns.

59. (Previously presented) The lithographic projection apparatus of Claim 57, wherein the hollow fiber membranes are hollow fiber membranes having a porous skinned inner surface, a porous outer surface and a porous support structure between; or hollow fiber membranes having a porous skinned outer surface, a porous inner surface and a porous support structure between; and the porous skinned surface pores are from about 0.001 microns to about 0.005 microns in diameter.

60. (Previously presented) The lithographic projection apparatus of Claim 45, wherein the first and second ends of the bundle are potted with a liquid tight perfluorinated thermoplastic seal forming a single unitary end structure comprising both the first and second ends with a surrounding perfluorinated thermoplastic housing wherein the fibers of the ends are separately open to fluid flow.

61. (Previously presented) The lithographic projection apparatus of Claim 45, wherein said supply system is capable of operation at a purge gas flow rate of at least about 30 standard liters per minute and a temperature of at least about 90°C.

62. (Previously presented) The lithographic projection apparatus of Claim 45, wherein the purge gas mixture generator is heated for a sufficient length of time at a temperature sufficient to substantially remove compounds that volatilize at temperatures of about 100°C or less.

63 through 67. (Canceled)

68. (Previously presented) The method of Claim 18, wherein the membrane is comprised of a thermoplastic polymer.

69. (Previously presented) The method of Claim 18, wherein the membrane is comprised of a perfluorinated polymer.

70. (Previously presented) The method of Claim 69, wherein the perfluorinated polymer is polytetrafluoroethylene.

71. (Currently amended) The method of Claim 18 ~~22~~, wherein the moisturizer comprises:

a) a bundle of a plurality of gas-permeable hollow fiber membranes having a first end and a second end, said membranes having an outer surface and an inner surface, said inner surface comprising one of the first and second regions;

b) each end of said bundle potted with a liquid tight seal forming an end structure with a surrounding housing wherein the fiber ends are open to fluid flow;

c) said housing having an inner wall and an outer wall, wherein the inner wall defines the other of the first and second regions between the inner wall and the hollow fiber membranes;

d) said housing comprising ~~having~~ a purge gas inlet connected to a ~~the~~ purge gas source, and comprising a purge gas mixture outlet; and

e) said housing comprising ~~having~~ a water inlet connected to ~~the~~ a water source, and comprising a water outlet, wherein either the purge gas inlet is connected to the first end of the bundle and the purge gas mixture outlet is connected to the second end of the bundle or the water inlet is connected to the first end of the bundle and the water outlet is connected to the second end of the bundle.

72. (Previously presented) The method of Claim 24, wherein the water is heated in or prior to entering the moisturizer.

73. (Previously presented) The method of Claim 24, wherein the purge gas source comprises a purifier device.

74. (Previously presented) The method of Claim 73, wherein the purifier device is regenerable.

75. (Previously presented) The method of Claim 74, wherein the purge gas source comprises first and second purifier devices and wherein the purifier devices are connected in parallel.

76. (Previously presented) The method of Claim 75, wherein the purge gas is purified by either the first or the second purifier device and wherein the other purifier device is regenerated.

77. (Previously presented) The method of Claim 24, wherein the hollow fiber membranes are selected from the group consisting of:

a) hollow fiber membranes having a porous skinned inner surface, a porous outer surface and a porous support structure between;

b) hollow fiber membranes having a non-porous skinned inner surface, a porous outer surface and a porous support structure between;

c) hollow fiber membranes having a porous skinned outer surface, a porous inner surface and a porous support structure between; and

d) hollow fiber membranes having a non-porous skinned outer surface, a porous inner surface and a porous support structure between.

78. (Previously presented) The method of Claim 77, wherein the hollow fiber membrane outer diameter is about 350 microns to about 1450 microns.

79. (Previously presented) The method of Claim 77, wherein the hollow fiber membranes are hollow fiber membranes having a porous skinned inner surface, a porous outer surface and a porous support structure between or hollow fiber membranes having a porous skinned outer surface, a porous inner surface and a porous support structure between and the porous skinned surface pores are from about 0.001 microns to about 0.005 microns in diameter.

80. (Previously presented) The method of Claim 24, wherein the first and second ends of the bundle are potted with a liquid tight perfluorinated thermoplastic seal forming a single unitary end structure comprising both the first and second ends with a surrounding perfluorinated thermoplastic housing wherein the fibers of the ends are separately open to fluid flow.

81. (Previously presented) The method of Claim 24, wherein the temperature of the water is at least about 30°C.

82. (Previously presented) The method of Claim 81, wherein the temperature of the water is at least about 50°C.

83. (Previously presented) The method of Claim 24, wherein the flow rate of the purge gas is at least about 20 standard liters per minute.

84. (Previously presented) The method of Claim 83, wherein the flow rate of the purge gas is at least about 60 standard liters per minute.

85. (Previously presented) The method of Claim 24, wherein the relative humidity of the humidified purge gas is at least about 20%.

86. (Previously presented) The method of Claim 85, wherein the relative humidity of the humidified purge gas is at least about 50%.

87. (Previously presented) The method of Claim 86, wherein the humidified purge gas is substantially saturated with moisture.

88. (Previously presented) The method of Claim 24, wherein the purge gas entering the moisturizer comprises no greater than about 1 part per billion (ppb) contaminants and wherein the humidified purge gas leaving the moisturizer comprises no greater than about 1 ppb contaminants.

89. (Previously presented) The method of Claim 88, wherein the purge gas entering the moisturizer comprises no greater than about 100 parts per trillion (ppt) contaminants and wherein the humidified purge gas leaving the moisturizer comprises no greater than about 100 ppt contaminants.

90. (Previously presented) The method of Claim 89, wherein the purge gas entering the moisturizer comprises no greater than about 1 ppt contaminants and wherein the humidified purge gas leaving the moisturizer comprises no greater than about 1 ppt contaminants.

91. (New) A purge gas mixture supply system, comprising:

a purge gas mixture generator comprising a moisturizer configured to add moisture to a purge gas, wherein said moisturizer comprises a first region containing a purge gas flow and a second region containing water wherein the first and second regions are separated by a membrane contactor;

the purge gas mixture generator being configured to add the moisture to the purge gas by further comprising a mass flow controller to control flow rate of the purge gas flow through the first region of the moisturizer and a pressure regulator to control flow of the water through the second region of the moisturizer such that the moisture is added to the purge gas to create a humidified purge gas mixture; and

a purge gas mixture outlet being connected to the purge gas mixture generator to supply the humidified purge gas mixture to at least part of a lithographic projection apparatus.

92. (New) The supply system of Claim 91, wherein the membrane contactor comprises a perfluorosulfonic acid polytetrafluoroethylene copolymer membrane.

93. (New) The supply system of Claim 91, wherein the membrane contactor comprises a membrane comprising a substance suitable for use as a fuel cell humidifier.

94. (New) The supply system of Claim 93, wherein the membrane contactor comprises an ionomer.

95. (New) The supply system of Claim 94, wherein the membrane contactor comprises a sulfonated tetrafluoroethylene based fluoropolymer-copolymer membrane.

96. (New) The supply system of Claim 95, wherein the membrane contactor comprises a perfluorosulfonic acid polytetrafluoroethylene copolymer membrane.

97. (New) The supply system of Claim 91, further comprising a heating device for the water.

98. (New) The supply system of Claim 91, further comprising a purifier device for a purge gas source.

99. (New) The supply system of Claim 98, wherein the purifier device is regenerable.

100. (New) The supply system of Claim 99, wherein the purge gas source comprises two purifier devices and wherein the purifier devices are connected in parallel.

101. (New) The supply system of Claim 91, wherein said supply system is capable of operation at a purge gas flow rate of at least about 30 standard liters per minute and a temperature of at least about 90°C.

102. (New) The supply system of Claim 91, wherein the purge gas mixture generator is heated for a sufficient length of time at a temperature sufficient to substantially remove compounds that volatilize at temperatures of about 100°C or less.

103. (New) The supply system of Claim 91, wherein the relative humidity of the humidified purge gas is at least about 50%.

104. (New) The supply system of Claim 91, wherein the purge gas entering the moisturizer comprises no greater than about 1 part per billion (ppb) contaminants and wherein the humidified purge gas leaving the moisturizer comprises no greater than about 1 ppb contaminants.